46

RAW SEQUENCE LISTING PATENT APPLICATION US/08/560,024

DATE: 04/11/98 TIME: 16:01:11

INPUT SET: S24916.raw

This Raw Listing contains the General Information Section and up to the first 5 pages.

ENTER

```
1
                                       SEQUENCE LISTING
 2
 3
           General Information:
    (1)
 4
 5
          (i) APPLICANT: Chen, Yao-Tseng; Stockert, Elisabeth;
 6
               Chen, Yachi; Garin-Chesa, Pilar; Rettig, Wolfgang J.;
 7
               van der Bruggen, Pierre; Boon-Falleur, Thierry;
 8
               Old, Lloyd J.
 9
10
          (ii) TITLE OF INVENTION: MONOCLONAL ANTIBODIES WHICH BIND TO
               TUMOR REJECTION ANTIGEN PRECURSOR MAGE-1, RECOMBINANT MAGE-1,
11
               AND MAGE-1 DERIVED IMMUNOGENIC PEPTIDES
12
13
          (iii) NUMBER OF SEQUENCES: 4
14
15
16
          (iv) CORRESPONDENCE ADDRESS:
17
               (A) ADDRESSEE: Felfe & Lynch
18
               (B) STREET: 805 Third Avenue
               (C) CITY: New York City
19
               (D) STATE: New York
20
21
               (F) ZIP: 10022
22
23
          (V) COMPUTER READABLE FORM:
24
               (A) MEDIUM TYPE: Diskette, 5.25 inch, 360 kb storage
25
               (B) COMPUTER: IBM
26
               (C) OPERATING SYSTEM: PC-DOS
27
               (D) SOFTWARE: Wordperfect
28
29
          (vi) CURRENT APPLICATION DATA:
30
               (A) APPLICATION NUMBER: 08/560,024
31
               (B) FILING DATE:
32
               (C) CLASSIFICATION:
33
34
          (vii) PRIOR APPLICATION DATA:
35
                (A) APPLICATION NUMBER: US/08/190,411
36
                (B) FILING DATE: 01-FEBRUARY-1994
37
38
                (A) APPLICATION NUMBER: 037,230
39
                (B) FILING DATE: 26-MARCH-1993
40
41
          (vii) PRIOR APPLICATION DATA:
42
                (A) APPLICATION NUMBER:
                                         PCT/US92/04354
43
                (B) FILING DATE: 22-MAY-1992
44
45
          (vii) PRIOR APPLICATION DATA:
```

(A) APPLICATION NUMBER:

07/807,043

RAW SEQUENCE LISTING PATENT APPLICATION US/08/560,024

DATE: 04/11/98 TIME: 16:01:11

```
47
                (B) FILING DATE: 12-DECEMBER-1991
48
49
         (vii) PRIOR APPLICATION DATA:
50
                (A) APPLICATION NUMBER: 07/764,364
51
                (B) FILING DATE: 23-SEPTEMBER-1991
52
53
         (vii) PRIOR APPLICATION DATA:
               (A) APPLICATION NUMBER: 07/728,838
54
55
                (b) FILING DATE: 9-JULY-1991
56
57
58
         (vii) PRIOR APPLICATION DATA:
59
               (A) APPLICATION NUMBER: 07/705,702
60
               (B) FILING DATE: 23-MAY-1991
61
62
         (viii) ATTORNEY/AGENT INFORMATION:
63
               (A) NAME: Hanson, Norman D.
               (B) REGISTRATION NUMBER: 30,946
64
65
               (C) REFERENCE/DOCKET NUMBER: LUD 5354
66
67
         (ix) TELECOMMUNICATION INFORMATION:
68
               (A) TELEPHONE: (212) 688-9200
69
               (B) TELEFAX: (212) 838-3884
70
71
72
73
74
    (2) INFORMATION FOR SEQ ID NO: 1:
75
         (i) SEQUENCE CHARACTERISTICS:
76
               (A) LENGTH: 5674 base pairs
77
               (B) TYPE:
                          nucleic acid
78
               (C) STRANDEDNESS: single
79
               (D) TOPOLOGY: linear
         (ii) MOLECULE TYPE: genomic DNA
80
81
         (ix) FEATURE:
82
               (A) NAME/KEY: MAGE-1 gene
83
         (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
84
85
    CCCGGGGCAC CACTGGCATC CCTCCCCCTA CCACCCCCAA TCCCTCCCTT
86
                                                                    50
    TACGCCACCC ATCCAAACAT CTTCACGCTC ACCCCCAGCC CAAGCCAGGC
87
                                                                   100
88
    AGAATCCGGT TCCACCCCTG CTCTCAACCC AGGGAAGCCC AGGTGCCCAG
                                                                   150
89
    ATGTGACGCC ACTGACTTGA GCATTAGTGG TTAGAGAGAA GCGAGGTTTT
                                                                   200
90
    CGGTCTGAGG GGCGGCTTGA GATCGGTGGA GGGAAGCGGG CCCAGCTCTG
                                                                   250
    TAAGGAGGCA AGGTGACATG CTGAGGGAGG ACTGAGGACC CACTTACCCC
91
                                                                   300
92
    AGATAGAGGA CCCCAAATAA TCCCTTCATG CCAGTCCTGG ACCATCTGGT
                                                                   350
93
    GGTGGACTTC TCAGGCTGGG CCACCCCCAG CCCCCTTGCT GCTTAAACCA
                                                                   400
94
    CTGGGGACTC GAAGTCAGAG CTCCGTGTGA TCAGGGAAGG GCTGCTTAGG
95
    AGAGGGCAGC GTCCAGGCTC TGCCAGACAT CATGCTCAGG ATTCTCAAGG
    AGGGCTGAGG GTCCCTAAGA CCCCACTCCC GTGACCCAAC CCCCACTCCA
96
                                                                   550
97
    ATGCTCACTC CCGTGACCCA ACCCCCTCTT CATTGTCATT CCAACCCCCA
                                                                   600
    CCCCACATCC CCCACCCCAT CCCTCAACCC TGATGCCCAT CCGCCCAGCC
98
                                                                   650
    ATTCCACCT CACCCCACC CCCACCCCCA CGCCCACTCC CACCCCCACC
                                                                   700
```

RAW SEQUENCE LISTING PATENT APPLICATION US/08/560,024

DATE: 04/11/98 TIME: 16:01:12

100	CAGGCAGGAT	CCGGTTCCCG	CCAGGAAACA	TCCGGGTGCC	CGGATGTGAC	750
101	GCCACTGACT	TGCGCATTGT	GGGGCAGAGA	GAAGCGAGGT	TTCCATTCTG/	800
102	AGGGACGCC	TAGAGTTCGG	CCGAAGGAAC	CTGACCCAGG	CTCTGTGAGG/	
103	AGGCAAGGTG	AGAGGCTGAG	GGAGGACTGA	GGACCCCGCC	ACTCCAAATA~	
104					CTGGCCCACC~	
105					GCTCCAAAAG~	
106					CAGAGGTTGC*	
107	TGTGACCAGG	GCAGGACTGG	TTAGGAGAGG	GCAGGGCACA	GGCTCTGCCA~	1100
108					CCAAGACTGC	
109	ACTCCAATCC	CCACTCCCAC	CCCATTCGCA	TTCCCATTCC	CCACCCAACC	1200
110	CCCATCTCCT	CAGCTACACC	TCCACCCCCA	TCCCTACTCC	TACTCCGTCA/	1250
111					TTCTGCCACO/	1300
112	TCACCCTCAC	TGCCCCCAAC	CCCACCCTCA	TCTCTCTCAT	GTGCCCCACT V	1350
113	CCCATCGCCT	CCCCCATTCT	GGCAGAATCC	GGTTTGCCCC	TGCTCTCAAC/	1400
114	CCAGGGAAGC	CCTGGTAGGC	CCGATGTGAA	ACCACTGACT	TGAACCTCAC	1450
115	AGATCTGAGA	GAAGCCAGGT	TCATTTAATG	GTTCTGAGGG	GCGGCTTGAG'	1500
116					AGGTGAGATG/	1550
117	CTGAGGGAGG	ACTGAGGAGG	CACACACCCC	AGGTAGATGG	CCCCAAAATG/	1600
118					CAGGACAGAT/	1650
119					TAACCCACAG/	
120					GGTCAGGAGA/	
121					TAGGGTCAGG\(\sigma\)	1800
122					TCCTCATCTC/	1850
123	CACCGCCACC	CCACTCACAT	TCCCATACCT	ACCCCCTACC	CCCAACCTCA	1900
124	TCTTGTCAGA	ATCCCTGCTG	TCAACCCACG	GAAGCCACGG	GAATGGCGGC/	1950
125					GAGGGAAGGG~	2000
126	GCTTGAACAG	GGCCTCAGGG	GAGCAGAGGG	AGGGCCCTAC	TGCGAGATGA~	
127	GGGAGGCCTC	AGAGGACCCA	GCACCCTAGG	ACACCGCACC	CCTGTCTGAG/	2100
128	ACTGAGGCTG	CCACTTCTGG	CCTCAAGAAT	CAGAACGATG	GGGACTCAGA~	2150
129	TTGCATGGGG	GTGGGACCCA	GGCCTGCAAG	GCTTACGCGG	AGGAAGAGGA _V	2200
130	GGGAGGACTC	AGGGGACCTT	GGAATCCAGA	TCAGTGTGGA	CCTCGGCCCTV	2250
131	GAGAGGTCCA	GGGCACGGTG	GCCACATATG	GCCCATATTT	CCTGCATCTT\(\sigma\)	2300
132	TGAGGTGACA	GGACAGAGCT	GTGGTCTGAG	AAGTGGGGCC	TCAGGTCAAC/	2350
133	AGAGGGAGGA	GTTCCAGGAT	CCATATGGCC	CAAGATGTGC	CCCCTTCATG/	2400
134	AGGACTGGGG	ATATCCCCGG	CTCAGAAAGA	AGGGACTCCA	CACAGTCTGG/	2450
135	CTGTCCCCTT	TTAGTAGCTC	TAGGGGGACC	AGATCAGGGA	TGGCGGTATG >	2500
136	TTCCATTCTC	ACTTGTACCA	CAGGCAGGAA	GTTGGGGGGC	CCTCAGGGAG/	2550
137	ATGGGGTCTT	GGGGTAAAGG	GGGGATGTCT	ACTCATGTCA	GGGAATTGGG/	2600
138	GGTTGAGGAA	GCACAGGCGC	TGGCAGGAAT	AAAGATGAGT	GAGACAGACA✓	2650
139	AGGCTATTGG	AATCCACACC	CCAGAACCAA	AGGGGTCAGC	CCTGGACACC	2700
140	TCACCCAGGA	TGTGGCTTCT	TTTTCACTCC	TGTTTCCAGA	TCTGGGGCAG	2750
141	GTGAGGACCT	CATTCTCAGA	GGGTGACTCA	GGTCAACGTA	GGGACCCCCAV	2800
142	TCTGGTCTAA	AGACAGAGCG	GTCCCAGGAT	CTGCCATGCG	TTCGGGTGAG	2850
143	GAACATGAGG	GAGGACTGAG	GGTACCCCAG	GACCAGAACA	CTGAGGGAGA√	2900
144	CTGCACAGAA	ATCAGCCCTG	CCCCTGCTGT	CACCCCAGAG	AGCATGGGCT V	2950
145	GGGCCGTCTG	CCGAGGTCCT	TCCGTTATCC	TGGGATCATT	GATGTCAGGG ~	3000
146	ACGGGGAGGC	CTTGGTCTGA	GAAGGCTGCG	CTCAGGTCAG	TAGAGGGAGC ~	3050
147	GTCCCAGGCC	CTGCCAGGAG	TCAAGGTGAG	GACCAAGCGG	GCACCTCACC~	3100
148	CAGGACACAT	TAATTCCAAT	GAATTTTGAT	ATCTCTTGCT	GCCCTTCCCC	3150
149	AAGGACCTAG	GCACGTGTGG	CCAGATGTTT	GTCCCCTCCT	GTCCTTCCAT	3200
150	TCCTTATCAT	GGATGTGAAC	TCTTGATTTG	GATTTCTCAG	ACCAGCAAAA./	3250
151	GGGCAGGATC	CAGGCCCTGC	CAGGAAAAAT	ATAAGGGCCC	TGCGTGAGAA	3300
152	CAGAGGGGGT	CATCCACTGC	ATGAGAGTGG	GGATGTCACA	GAGTCCAGCC✓	3350
						•

205

RAW SEQUENCE LISTING PATENT APPLICATION US/08/560,024

DATE: 04/11/98 TIME: 16:01:12

	1111 01	DD 11 DZ 17 Z 011 V
153	CACCCTCCTG GTAGCACTGA GAAGCCAGGG CTGTGCTTGC GGTCTGCACCV	3400
154	CTGAGGGCCC GTGGATTCCT CTTCCTGGAG CTCCAGGAAC CAGGCAGTGA	3450
155	GGCCTTGGTC TGAGACAGTA TCCTCAGGTC ACAGAGCAGA GGATGCACAG	3500
156	GGTGTGCCAG CAGTGAATGT TTGCCCTGAA TGCACACCAA GGGCCCCACC	3550
157	TGCCACAGGA CACATAGGAC TCCACAGAGT CTGGCCTCAC CTCCCTACTG	3600
158	TCAGTCCTGT AGAATCGACC TCTGCTGGCC GGCTGTACCC TGAGTACCCT	3650
159	CTCACTTCCT CCTTCAGGTT TTCAGGGGAC AGGCCAACCC AGAGGACAGG	3700
160	ATTCCCTGGA GGCCACAGAG GAGCACCAAG GAGAAGATCT GTAAGTAGGCV	3750
161	CTTTGTTAGA GTCTCCAAGG TTCAGTTCTC AGCTGAGGCC TCTCACACACV	3800
162	TCCCTCTCTC CCCAGGCCTG TGGGTCTTCA TTGCCCAGCT CCTGCCCACA	3850
163	CTCCTGCCTG CTGCCCTGAC GAGAGTCATC	3880
164	ATG TCT CTT GAG CAG AGG AGT CTG CAC TGC AAG CCT GAG GAA	3922
165	GCC CTT GAG GCC CAA CAA GAG GCC CTG GGC CTG GTG TGT GTG	3964
166	CAG GCT GCC ACC TCC TCC TCT CCT CTG GTC CTG GGC ACC	4006
167	CTG GAG GAG GTG CCC ACT GCT GGG TCA ACA GAT CCT CCC CAG	4048
168	AGT CCT CAG GGA GCC TCC GCC TTT CCC ACT ACC ATC AAC TTC	4090
169	ACT CGA CAG AGG CAA CCC AGT GAG GGT TCC AGC AGC CGT GAA	4132
170	GAG GAG GGG CCA AGC ACC TCT TGT ATC CTG GAG TCC TTG TTC	4174
171	CGA GCA GTA ATC ACT AAG AAG GTG GCT GAT TTG GTT GGT TTT	4216
172	CTG CTC CTC AAA TAT CGA GCC AGG GAG CCA GTC ACA AAG GCA	4258
173	GAA ATG CTG GAG AGT GTC ATC AAA AAT TAC AAG CAC TGT TTT	4300
174	CCT GAG ATC TTC GGC AAA GCC TCT GAG TCC TTG CAG CTG GTC	4342
175	TTT GGC ATT GAC GTG AAG GAA GCA GAC CCC ACC GGC CAC TCC	4384
176	TAT GTC CTT GTC ACC TGC CTA GGT CTC TCC TAT GAT GGC CTG	4426
177	CTG GGT GAT AAT CAG ATC ATG CCC AAG ACA GGC TTC CTG ATA	4468
178	ATT GTC CTG GTC ATG ATT GCA ATG GAG GGC GGC CAT GCT CCT	4510
179	GAG GAG GAA ATC TGG GAG GAG CTG AGT GTG ATG GAG GTG TAT	4552
180	GAT GGG AGG GAG CAC AGT GCC TAT GGG GAG CCC AGG AAG CTG	4594
181	CTC ACC CAA GAT TTG GTG CAG GAA AAG TAC CTG GAG TAC GGC	4636
182	AGG TGC CGG ACA GTG ATC CCG CAC GCT ATG AGT TCC TGT GGG	4678
183	GTC CAA GGG CCC TCG CTG AAA CCA GCT ATG TGA	4711
184	AAGTCCTTGA GTATGTGATC AAGGTCAGTG CAAGAGTTC	4750
185	GCTTTTTCTT CCCATCCTG CGTGAAGCAG CTTTGAGAGA GGAGGAAGAG	4800
186	GGAGTCTGAG CATGAGTTGC AGCCAAGGCC AGTGGGAGGG GGACTGGGCC	
187	AGTGCACCTT CCAGGGCCGC GTCCAGCAGC TTCCCCTGCC TCGTGTGACA	4850
188	TGAGGCCCAT TCTTCACTCT GAAGAGAGCG GTCAGTGTTC TCAGTAGTAG	4900 4950
189	GTTTCTGTTC TATTGGGTGA CTTGGAGATT TATCTTTGTT CTCTTTTGGA	
190	ATTGTTCAAA TGTTTTTTT TAAGGGATGG TTGAATGAAC TTCAGCATCC	5000
		5050
191	AAGTTTATGA ATGACAGCAG TCACACAGTT CTGTGTATAT AGTTTAAGGG	5100
192 193	TAAGAGTCTT GTGTTTTATT CAGATTGGGA AATCCATTCT ATTTTGTGAA	5150
	TTGGGATAAT AACAGCAGTG GAATAAGTAC TTAGAAATGT GAAAAATGAG	5200
194	CAGTAAAATA GATGAGATAA AGAACTAAAG AAATTAAGAG ATAGTCAATT	5250
195	CTTGCCTTAT ACCTCAGTCT ATTCTGTAAA ATTTTTAAAG ATATATGCAT	5300
196	ACCTGGATTT CCTTGGCTTC TTTGAGAATG TAAGAGAAAT TAAATCTGAA	5350
197	TAAAGAATTC TTCCTGTTCA CTGGCTCTTT TCTTCTCCAT GCACTGAGCA	5400
198	TCTGCTTTTT GGAAGGCCCT GGGTTAGTAG TGGAGATGCT AAGGTAAGCC	5450
199	AGACTCATAC CCACCCATAG GGTCGTAGAG TCTAGGAGCT GCAGTCACGT	5500
200	AATCGAGGTG GCAAGATGTC CTCTAAAGAT GTAGGGAAAA GTGAGAGAGG	5550
201	GGTGAGGGTG TGGGGCTCCG GGTGAGAGTG GTGGAGTGTC AATGCCCTGA	5600
202	GCTGGGGCAT TTTGGGCTTT GGGAAACTGC AGTTCCTTCT GGGGGAGCTG	5650
203	ATTGTAATGA TCTTGGGTGG ATCC	5674
204		

RAW SEQUENCE LISTING PATENT APPLICATION US/08/560,024

DATE: 04/11/98 TIME: 16:01:13

```
206
207
     (2) INFORMATION FOR SEQ ID NO: 2:
208
          (i) SEQUENCE CHARACTERISTICS:
                (A) LENGTH: 14 amino acid residues
209
210
             (B) TYPE: amino acid
          (D) TOPOLOGY: linear (ii) MOLECULE TYPE: protein
211
212
213
          (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
214
215
216
     Ile Asn Phe Thr Arg Gln Arg Gln Pro Ser Glu Gly Ser Ser
217
218
219
220
     (2) INFORMATION FOR SEQ ID NO: 3:
221
          (i) SEQUENCE CHARACTERISTICS:
222
                (A) LENGTH: 12 amino acid residues
223
                (B) TYPE: amino acid
224
                (D) TOPOLOGY: linear
          (ii) MOLECULE TYPE: protein
225
226
          (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
227
228
229
     Leu Phe Arg Ala Val Ile Thr Lys Lys Val Ala Asp
230
                      5
231
232
233
234
     (2) INFORMATION FOR SEQ ID NO: 4:
235
          (i) SEQUENCE CHARACTERISTICS:
236
                (A) LENGTH: 12 amino acid residues
237
               (B) TYPE: amino acid
238
               (D) TOPOLOGY: linear
239
          (ii) MOLECULE TYPE: protein
240
          (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
241
242
243 Asp Val Lys Glu Ala Asp Pro Thr Gly His Ser Tyr
244
245
```

SEQUENCE VERIFICATION REPORT PATENT APPLICATION *US/08/560,024*

DATE: 04/11/98 TIME: 16:01:13

INPUT SET: S24916.raw

Line

Error

Original Text